5. Workability Indices of Coal seams.
6. Development and Field Trial of a cost effective appropriate method (Knife edge method) for extraction of thin seam.
7. Design of supports for mine roadways.
8. Investigation into thermal behaviour of some commercial explosives and their influence on rock blasting.
9. Investigation into the influence of blasting pattern and geotechnical properties of the surrounding rock mass on ground vibration, fragmentation and fly rocks.

MINE ENVIRONMENT

10. Development of Sealants.
11. Studies in Heat and Humidity in Coal Mines.
12. Assessment of status and control of underground coal mine fires.
13. Control of Pollution due to Toxic Gases Produced during operation with Explosives in underground Coal Mines.
14. Specific gas emission study for prediction of methane emission.
15. Investigation into the levels of pollution in water bodies in an around water resources project (at DVC area).

MINE ENGINEERING

16. Development of Sensors and Micro Processor based Switching System for Intrinsically safe Power Supply for Underground use.

Supply of Under Weighed LPG Cylinders by Shivanika Enterprises, Delhi

1430. SHRI D. B. CHANDRE GOWDA: Will the Minister of PETROLEUM AND NATURAL GAS be pleased to state:

(a) whether it is a fact that the gag cylinders supplied to the consumers by Shivanika Enterprises Vivek Vihar, Delhi are under weighed;

(b) whether one of the reasons for the above is that delivery-men engaged by the agency first supply the LPG cylinders to the hotels/restaurants and afterwards the same cylinders are supplied to the consumers; and

(c) if so, what action has been taken/proposed to be .taken against the agency?

THE MINISTER OF STATE OF THE MINISTRY OF PETROLEUM AND NATURAL GAS (SHRI BRAHM DUTT); (a) No, Sir;

(b) and (c) Do not arise in view of (a) above.

Expansion of Haldia Refinery

1431. SHRI MOHAMMED AMIN: Will the Minister of PETROLEUM AND NATURAL GAS be pleased to state:

(a) whether there is any plan for the expansion of the capacity of Haldia Refinery;

(b) if so, what are the details thereof; and

(c) if not, what are the reasons therefor?

THE MINISTER OF STATE OF THE MINISTRY OF PETROLEUM AND NATURAL GAS (SHRI BRAHM DUTT): (a) No, Sir.

(b) Does not arise.

(c) Expansion of Haldia Refinery is not considered feasible since it would cost as much as a grass root refinery. Further, other demand supply considerations also are not favourable for this expansion

Discovery of Hydrocarbons in West Bengal

1432. SHRI RAMNARAYAN GOSWAMI: Will the Minister of PET ROLEUM AND NATURAL GAS be pleased to state what steps have so